TRANSPORTATION

INTRODUCTION

The transportation system can be viewed as a collection of facilities and machines that enhance mobility. Although roads are the largest component of that system, transportation planning encompasses many modes of transportation, including air, rail, water, transit, bicycling, and walking. Unfortunately, transportation planning is generally most apparent when not done correctly or when needs outstrip resources.

Transportation is a critical part of the overall planning process because it not only affects land use but *is itself* a land use. It shapes and molds the community in numerous ways. Roads and intersections use a great deal of land and also attract development. New roads can channel business away from old routes, thereby affecting existing businesses. Highways and rail lines form physical barriers to development and tend to separate communities as well as create traffic choke points where they intersect.

Before 1991, transportation planning in Virginia was little more than compiling lists of desired roadway improvements without regard to cost or feasibility. There traditionally had been no attempt to match costs with expected revenues. Consequently, transportation plans had no certainty attached to them and provided no guidance as to what improvements might actually be made within a period of time. Furthermore, there was little attempt to coordinate among different transportation modes.

The culture of transportation changed in 1991 when Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA), which placed more emphasis on planning and less on engineering. ISTEA, which was re-authorized in 1998 as TEA-21 (the Transportation Equity Act for the 21st Century) also required regional and state transportation plans to be "fiscally constrained," to conform with air quality standards, and to consider all modes in making transportation investment decisions. The goal is to allow transportation decisions to be more responsive to the needs and desires of local residents.

Another emphasis of ISTEA and TEA-21 was on the need for regional transportation planning. Many travel patterns cross the jurisdictional boundaries of the communities within Hampton Roads, hence the need for a regional approach to transportation planning. In this regard, continuation of the regional network and modeling effort of the Hampton Roads Planning District Commission is crucial, not only to the region as a whole but to each of its member communities.

There have been several major transportation improvements and initiatives in the County since the adoption of the Comprehensive Plan in 1991, some of them as a direct result of ISTEA:

- Widening of the Coleman Bridge in Yorktown.
- Construction of Victory Boulevard (Route 171) between Route 17 and the Newport News City line.
- Completion of Route 199 with a full cloverleaf interchange at Mooretown Road.
- Extension and widening of Mooretown Road
- Widening of Old York-Hampton Highway.
- Widening of Amory Lane to improve access to Grafton High School/Middle School.
- Adoption of a regional bikeway plan for York County, James City County, and Williamsburg and the construction of bike lanes along Old York-Hampton Highway and Amory Lane
- Initiation of a three-year bus service pilot program
- Adoption of a County Sidewalk Plan

SUMMARY OF EXISTING CONDITIONS

Roadways

Roads represent the largest component of the County's transportation network. Largely because of the County's topography, the roadway network has developed with a large number of collector roads feeding

a few arterial roads. Roads in York County² are maintained not by the County but by the Virginia Department of Transportation (VDOT), which is responsible for almost 300 miles of roadway in the County.

The automobile is the travel mode of choice for most Americans, and York County residents are no exception. In fact, York County is more dependent on the single-occupant vehicle (SOV) than most neighboring localities, and this dependence is growing. The growing prevalence of the single-occupant vehicle, combined with high residential and commercial growth in the County and the region, has led to increased traffic congestion. Average traffic volumes on most roads in the County have risen over the past decade, straining some roads – including Route 17, Fort Eustis Boulevard (Route 105), Hampton Highway (Route 134), and segments of Interstate 64 and Victory Boulevard (Route 171) – beyond their capacity.

Unlike traffic congestion, traffic accidents have not increased significantly. For most roadways in the County the accident rate (accidents per 100 million vehicle miles of travel) has fallen because traffic volumes are increasing faster than the number of traffic accidents. Such trends are closely monitored by the York County Transportation Safety Commission, which is an advisory body to the Board of Supervisors composed of County citizens and staff who have an interest in transportation safety. One activity of the Commission, which developed the County's Transportation Safety Plan in 1992, is to analyze accident trends to identify hazardous locations which can then be emphasized through education, enforcement, engineering, or some combination thereof.

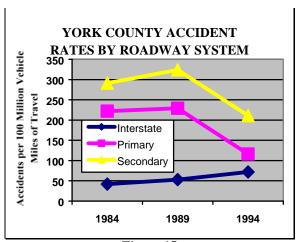


Figure 15

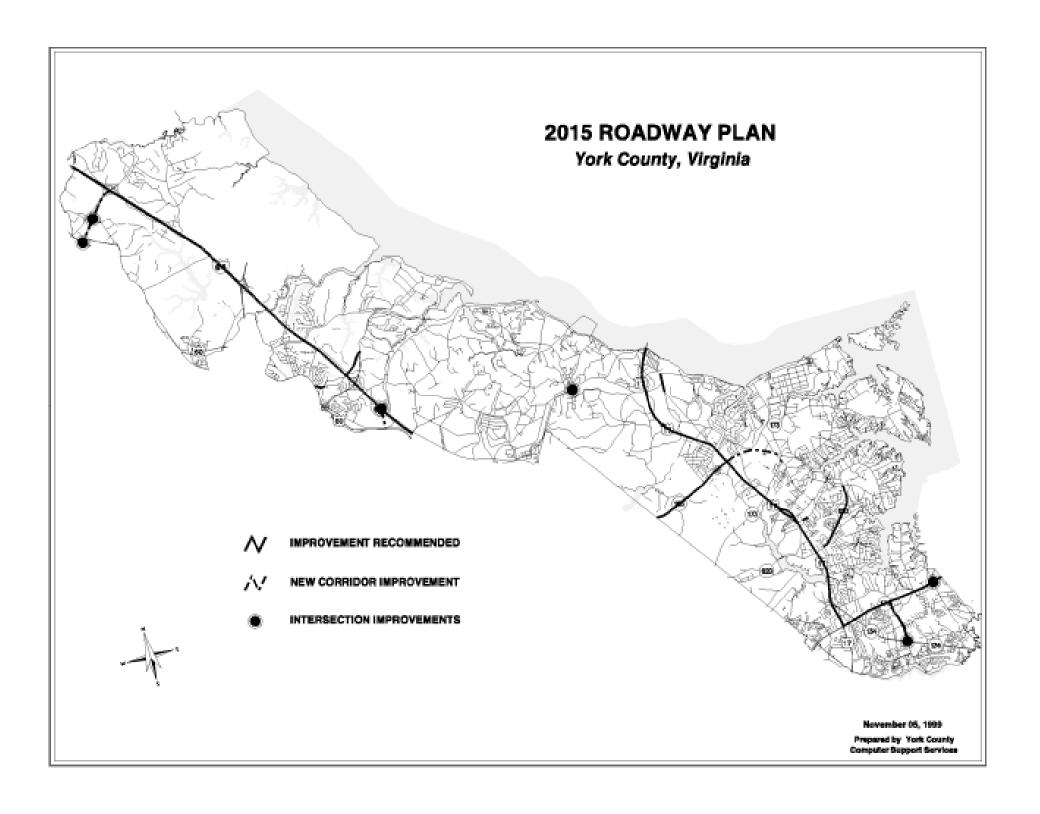
Taken together, safety deficiencies and capacity deficiencies are often an indication that some type of road improvement is needed. The four basic types of improvements are 1) New Facilities, which remove traffic from existing roadways; 2) New Through Lanes, which add capacity and enhance safety; 2) Spot Improvements, such as turn lanes, improved roadway geometrics, signals, signs, and pavement markings; and 4) Transportation System Management (TSM) Measures, which usually focus on reducing peak hour demand by encouraging alternative travel modes or off-peak travel times.

In order to provide guidance for assigning relative priorities to various road improvements, a mathematical model has been developed that allows capacity and safety improvements to be considered together. The intent of the model is not to prioritize specific road improvements but rather to provide information in order to assist decision-makers in establishing roadway improvement and funding priorities.

According to this model, primary roads in the County particularly in need of attention include Route 17, Route 134 (Hampton Highway), Route 171 (Victory Boulevard), and 173 (Denbigh Boulevard). For interstate and primary road system improvements, the County is largely beholden to VDOT and the Commonwealth Transportation Board, which each year establishes statewide interstate, primary, and urban highway system funding priorities through the adoption of the State Six-Year Improvement Program. In the secondary system, Oriana Road, Big Bethel Road, and Lakeside Drive stand out as roadways with a relatively high need for improvement. The County has much more control over secondary road system improvements than it does over the interstate and primary systems, working with the local VDOT representatives to prioritize secondary road projects over the next six-year period and to allocate the funds accordingly.

The 2015 Roadway Map depicts all County road projects that are in the 2018 fiscally-constrained Long-Range Plan for Hampton Roads (except the recently completed Mooretown Road projects) as adopted by the region's Metropolitan Planning Organization (MPO). This plan was developed using a computerized travel

² Excluding private streets and Federal roads, such as the Colonial Parkway and roads located within military bases.



demand model that allowed many different roadway scenarios to be tested and evaluated relative to one another. Projects in York County, some of which are currently under construction, are listed below.

- Widen Route 17, Fort Eustis Boulevard (Route 105), Interstate 64, and Victory Boulevard (Route 171).
- Extend Fort Eustis Boulevard eastward from Route 17 to the intersection of Goodwin Neck Road (Route 173) and Seaford Road (Route 622)
- Construct turn lanes at Route 134 and Big Bethel Road
- Construct a full cloverleaf interchange at Route 199 and International Parkway.
- Widen and extend Mooretown Road (Route 603).

Also depicted on the map are short- and medium-term secondary road projects that have been programmed into VDOT's six-year improvement plans. Secondary roads that are currently programmed for some type of improvement include Grafton Drive, Penniman Road, Wolftrap Road, Lakeside Drive, Burts Road, Big Bethel Road, Yorktown Road, Yorkville Road, Cary's Chapel Road, and Dare Road.

As noted above, with the passage of ISTEA in 1991 and TEA-21 in 1998, Congress recognized the need to look beyond road construction in developing solutions to our nation's transportation problems. Alternative modes of transportation – including transit, rail, bicycles, and walking – were given renewed attention in transportation planning.

Mass Transit

As discussed earlier, only a small proportion of County residents uses mass transit, partly because there is very little mass transit available in the County. In an effort to provide public transportation for County residents who need it, the County entered into a partnership with Pentran and the Virginia Department of Rail and Public Transportation to institute fixed route peak-hour bus service in June 1994. The service, which was paid for mostly with Federal ISTEA funds and operated as a three-year pilot project, never attracted significant ridership and was discontinued in 1997.

Another bus service that has proven more successful is the R&R ("Relax & Ride") Visitor Shuttle that serves the Williamsburg area, including portions of upper York County. This seasonal service began in 1997 as a three-year pilot program funded mostly with Federal ISTEA money through a regional allocation supplemented with funds from Williamsburg, James City County, and York County. The R&R shuttle has surpassed expectations, attracting a total ridership of 58,172 in 1997 and 121,061 in 1998.

Another form of transit is carpooling and ride sharing. To encourage this activity, VDOT has constructed commuter parking lots on East Rochambeau Drive and under the Coleman Bridge. In addition, the region funds a computerized ride-matching program known as Traffix, which is working with employers in the region to develop ride-sharing programs. Finally, high occupancy vehicle (HOV) lanes that are limited to vehicles occupied by two or more people offer another means to encourage ride sharing. HOV lanes are planned for construction along I-64 between the Route 199 (south) interchange and I-664 in Hampton.

Railways

The CSX main-line between Richmond and the coal port facilities of Newport News generally runs along the spine of the Peninsula and provides both passenger and freight service. County citizens have relatively convenient access to passenger rail service through Amtrak, which offers daily service to the Peninsula, with scheduled stops at Newport News and Williamsburg. The principal freight activity along this main-line route is the hauling of coal to the coal terminals in Newport News. Six to eight coal trains a day traverse the CSX line, primarily serving Virginia Power and Amoco.

A Major Investment Study (MIS) of the CSX Railway Corridor was completed in 1997. Local jurisdictions including York County were involved in reviewing the study's findings and in selecting the locally preferred alternative, which is to enhance bus service in the short term while planning for light rail service in the long term. The CSX Corridor preferred alternative will be integrated with the I-64 MIS, which calls for double-tracking the CSX corridor to provide for some separation of passenger rail and freight service. This will allow passenger rail speeds up to 110 mph and eight trains per direction per day,

potentially increasing daily ridership from 520 in 1996 to 3,000 by 2015. The CSX MIS will also be integrated with the Hampton Roads Crossing Study, which identified a corridor for a future third crossing of Hampton Roads that could possibly include a transit component.

Bikeways

In 1993, York County joined with Williamsburg and James City County in developing a Regional Bikeway Plan, which was adopted by the governing bodies of the three localities, who recognized that a regional approach was appropriate since bikeways, like roads, should not abruptly end at jurisdictional boundary lines. In accordance with this plan, 9.5 miles of bikeways have since been built along Old York-Hampton Highway and Amory Lane, and another 13 miles are scheduled for construction by the end of 1999. Three basic types of bikeways are addressed in the Regional Bikeway Plan:

- Multi-Use Trails constructed physically separate from roadways,
- Shoulder Bike Lanes constructed adjacent to traffic lanes and generally delineated by pavement markings, and
- Shared Roadways where the travel lanes are shared by all users of the roadway.

In 1994, the Historic Triangle Bicycle Advisory Committee (HTBAC) comprised of representatives of Williamsburg, James City County, and York County was formed and charged with coordinating updates to the Regional Bicycle Plan. Such an update was undertaken in 1996-97, and several series of public input sessions were held. The resulting Regional Bikeway Plan, which incorporates not only transportation-oriented facilities but recreational ones as well, reflects five years of public input from more than 400 citizens in the region. In York County, the Regional Bikeway Plan provides for a 115-mile bikeway system comprised of approximately 57 miles of shoulder lanes, 35 miles of shared roadways, and 22 miles of multi-use trails.

Walkways

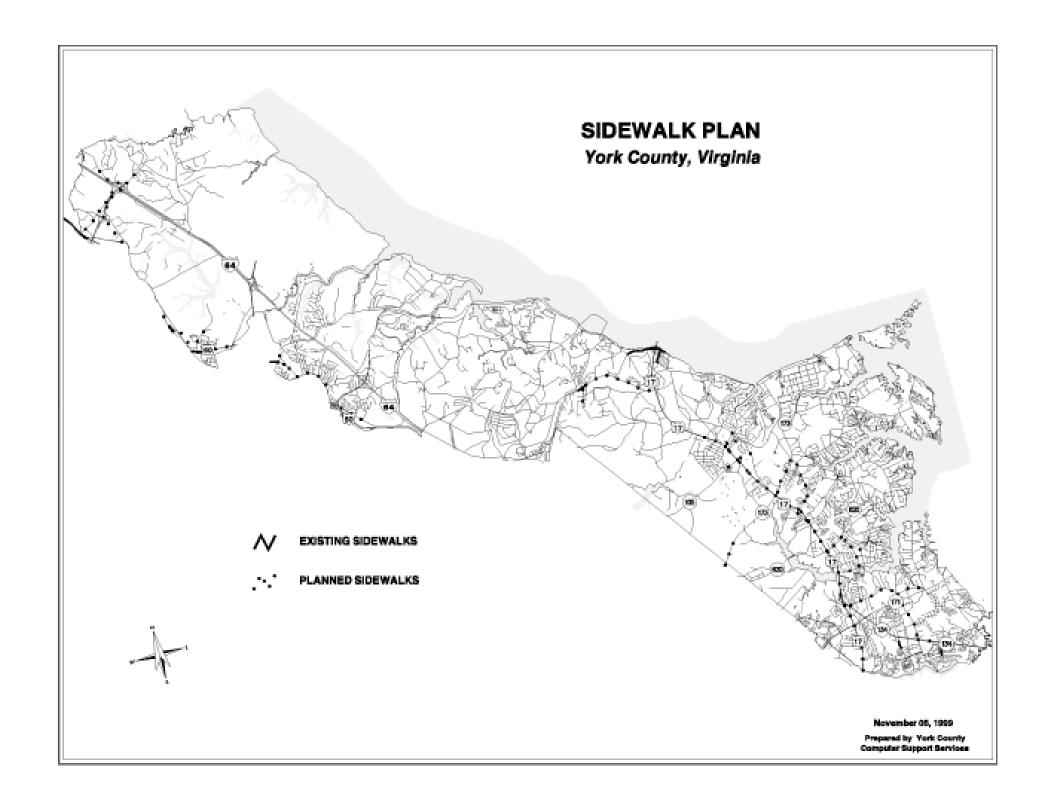
In a number of obvious cases – including Richmond Road, Second Street, and Merrimac Trail – York County can be defined as the place where the sidewalk ends. Streets in the County that do have sidewalks or pedestrian/bicycle trails include Bypass Road, a segment of Lightfoot Road, Water Street, Ballard Street, First Avenue, Coventry Boulevard, Owen Davis Boulevard, and Kiln Creek Parkway. In addition, sidewalks are present along many of the County's subdivision streets.

In November 1995, on the recommendation of the Transportation Safety Commission, the Board of Supervisors adopted a sidewalk plan for York County. This plan was based on two premises: that people should be able to walk safely to nearby schools, shops, parks, churches, libraries, and they should be encouraged to do so. Accordingly, the sidewalk plan focuses on areas where people live within a reasonable walking distance of such facilities.

There are three basic ways to implement the sidewalk plan. One is to incorporate sidewalks, as appropriate, into road construction and improvement projects. Another is to require sidewalks in commercial areas as a condition of development. The third, along existing roadways where there is a demonstrated need for sidewalks but neither roadway improvement nor significant new development is likely, the County can initiate and fund sidewalk construction.

Airports

York County is served by three commercial airports: Newport News/Williamsburg International, Norfolk International, and Richmond International. Other airport facilities that are located in or affect York County include Langley Air Force Base in Hampton, airfields at Camp Peary and the Yorktown Naval Weapons Station, and the Williamsburg-Jamestown Airport in James City County.



The need for improvements, if any, to Newport News/Williamsburg International Airport will be dictated by demand. The Airport Master Plan, which was adopted by the Peninsula Airport Commission in 1997, considers three possible growth scenarios that are based on differing assumptions. The plan projects that annual airport operations (takeoffs and landings) will grow from approximately 169,400 in 1995 to somewhere between 222,800 and 482,200 by 2030. The annual number of passenger enplanements (outbound) at the airport is projected to grow from 162,000 in 1995 to 642,000 in 2030 under the low scenario and to 2.8 million under the high scenario. The high growth scenario assumes that Newport News/Williamsburg International Airport will become a connecting hub airport.

The 1997 Airport Master Plan calls for the ultimate extension of both existing runways and construction of a third in order to accommodate the high-growth connecting hub scenario. While such a configuration would extend the runways closer to populated areas of York County, the noise aspects of this configuration may actually be reduced in future years as noise abatement technologies are developed and utilized, both at airports and on the planes themselves. In fact, the Master Plan predicts that the area affected by noise from the fully developed airport will be less than the current situation.

The Norfolk and Richmond airports also have plans to expand to accommodate projected growth in activity. Both airports are projecting to double their number of

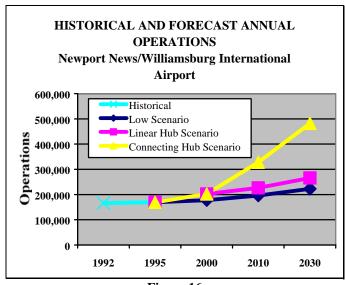


Figure 16

annual operations by the year 2030, with over 300,000 operations projected at Norfolk International and 258,200 at Richmond International.

An "Eastern Virginia Airport System Study" is currently under way to analyze the air transportation needs of the greater eastern Virginia region, which encompasses the combined market area of the three airports. This study will address means to enhance capacity and efficiency and to stimulate economic development and perhaps lead to the eventual establishment of a major international airport in the region.

Waterways

The many waterways in and around York County are used by residents and businesses for a variety of purposes including seafood harvesting, recreation, and passive enjoyment, but only the York River serves as a transportation artery. The York River, with a 32-foot wide channel, is one of the deepest rivers in the world. It is 33 miles long and is fed by a mixture of freshwater from rainfall and drainage from the west and tidal action and saltwater from the Atlantic Ocean and Chesapeake Bay from the east.

Three primary types of cargo are transported by water along the York River – crude oil and refined petroleum products to and from Amoco; military supplies to and from the U.S. Navy installations along the river (primarily the Yorktown Weapons Station); and both raw materials and finished paper products to and from the Chesapeake Corporation at West Point. There has also been some barging of sand and gravel.

In addition to cargo transport along the river, Yorktown has served as a port-of-call for a passenger cruise ship line and has had other cruise ship lines call in the past. The major impediment to this type of activity in recent years has been the lack of adequate docking facilities, the public wharf having been closed because of disrepair. The <u>Yorktown Master Plan</u> calls for demolition of the old wharf and construction of a new wharf and pier complex that is longer and extends farther into the river. Such a facility would accommodate deeper draft vessels and large vessels – such as tall ships, dinner cruise boats, or commercial cruise lines – to dock simultaneously. The plan also recommends that facilities be provided for temporary docking of small pleasure boats for boaters wishing to make day trips to Yorktown. In addition, the plan notes that the end of

the existing pier in Yorktown could also be adapted to allow a cruise ship to dock parallel with the currents. An investor group is in the final stages of developing a lunch and dinner cruise operation based at the existing pier in Yorktown.

The scenic vistas and value of the York River contribute to the ambiance of Yorktown and the entire County. With a few exceptions, river views are relatively unspoiled by large-scale or industrial waterfront types of uses. The Colonial Parkway serves as the main tourist route between Williamsburg and Yorktown and the maintenance of the scenic values along this roadway is critical to preserving its appeal.

CITIZEN INPUT AND PLANNING POLICIES

As noted in the Demographic Profile, the future will bring more growth to the County and hence more traffic. This will continue even after the County reaches build-out, since it is surrounded by localities that have much more land area to support further development. Route 17 is a major artery running through the lower County that links the Peninsula with both south Hampton Roads and the Middle Peninsula. Similarly, Interstate 64 runs through the upper County and stretches north to the Richmond area, where it connects with I-295 and I-95. Congestion cannot be eliminated but it can be managed, and that is a prime focus of *Intelligent Transportation Systems* (ITS). The ITS concept, which is currently in the early stages of development in Hampton Roads, is to make use of rapidly developing technologies to manage transportation more efficiently on the existing network. Some examples of ITS applications include cameras along the road for monitoring traffic flow, variable message signs for reactive routing, interstate ramp metering for improving traffic flow at major conflict points, and automatic highway advisory radio.

As noted earlier, when it passed the ISTEA legislation in 1991 and TEA-21 in 1998, Congress recognized the need for a multi-modal transportation network focusing not just on roads but also on "alternative" modes of transportation such as rail, transit, bicycles, and walking. Road construction, therefore, is only part of the solution to our nation's transportation problems. Among York County's citizens, road construction is still seen as the best way of alleviating the County's traffic congestion problems, but there also is support for a multi-modal approach to transportation planning that includes alternative strategies that do not rely on single-occupant automobiles, such as transit, ride-sharing, walkways, and bikeways.

During the Comprehensive Plan Citizen Input Process, citizens indicated that the County should promote transit and ride-sharing. Although York County's three-year experiment in providing mass transit service to residents who need it did not prove successful, there may be transit strategies other than fixed-route bus service that are more viable. One form of public transportation service that might be more viable is express service to a single employer or a group of clustered employers. A number of such vehicles traverse the County daily between the Middle Peninsula and Newport News Shipbuilding. Similarly, Water County USA participates with Busch Gardens in contracted express service from Newport News to its facility during the summer months. These employment-only services generally require little operational subsidy by either the employer or the public sector because of their limited scope and high occupancy rates. Because of the dispersed low-density residential development in York County, employment-based services would require relatively few centralized gathering points – such as underused parking lots – to serve as "Park & Ride" areas where riders can legally and safely park their cars to board the bus or van.

In addition to the resident-oriented services discussed above, the visitor market presents opportunities for creative transportation solutions, as demonstrated by the success of the R&R Visitor Shuttle. Considerable discussion is occurring relative to promoting Yorktown as a port-of-call for both small cruise ships and private vessels. Visitors who arrive at Yorktown by water will need ground transportation services to visit the rest of the Historic Triangle, and few boats are likely to call unless such services are available. A market study performed as a part of the Yorktown revitalization effort found that a transportation center within walking distance of the Yorktown Waterfront containing parking and convenience facilities to support tour bus, shuttle bus, trolley, and limousine services may be viable. In response to this study and the discussion that occurred during the development of the <u>Yorktown Master Plan</u>, the County is in the process of purchasing a trolley bus to be used to shuttle visitors throughout the village. In the meantime, the County is leasing a trolley from Pentran on selected weekends during the visitorseason.

In the Comprehensive Plan Review Survey, the citizens indicated that sidewalks should be constructed in strategic locations and within residential neighborhoods but not along major commercial roads. Specifically, 53% of the residents believe that sidewalks are needed in areas where people live within a ten-minute walking distance of stores, schools, etc., and 55% feel that sidewalks are needed within residential developments. These findings are consistent with the guidelines that were used in developing the County Sidewalk Plan.

Well-designed, constructed, and lighted walkways increase pedestrian safety and, in so doing, invite pedestrian use. Consequently, in tourist and commercial areas, good sidewalks can provide economic advantages encouraging consumers to patronize nearby establishments rather than driving farther and perhaps to a business not located in the Ideally, walkways should County. provided within and between residential neighborhoods and nearby recreational areas, facilities, and community commercial establishments. VDOT will consider walkway construction in conjunction with road improvement projects when such facilities are contained in a sidewalk plan adopted by the

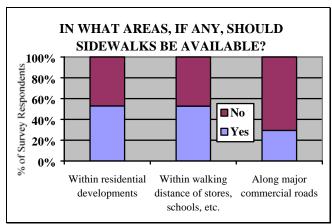


Figure 17

locality. The costs are added into the project cost in such situations. In addition, Federal funds are available for walkways through the CMAQ (Congestion Mitigation and Air Quality) program, the Transportation Enhancements program, and the Surface Transportation Program (STP). In fact, one of the purposes of ISTEA – and TEA-21 – is to encourage the construction of walkways by making categories of funding available for such projects.

Like walkways, bikeways were also a specific focus of the ISTEA legislation. The funding sources mentioned above are also available for bicycle facilities. Although bicycles are vehicles under Virginia law and are permitted on every road and highway except the Interstate system, some roads have speed, volume, or geometric characteristics that discourage or preclude thir use by cyclists. VDOT will construct bikeways as a part of road improvement projects when they are shown on a bikeway plan. Little financial participation by the County is required since right-of-way and engineering costs are borne by VDOT and approximately 80% of the construction costs are eligible for federal funding.

A common distinction in bikeway planning is between transportation and recreational routes. The bikeway plan contained in this element attempts to address both but is still principally a transportation-oriented plan. Recreational routes should be considered in developing parks and recreation plans as well as in the review of large residential developments. It is especially important that bikeways connect residential, commercial, and recreational areas, and community facilities such as schools, libraries, and athletic fields. In any case, bicycle facilities should be connected and integrated to form a comprehensive bikeway system.

Just as roads are one component of the surface transportation network, surface transportation is just one component of the overall transportation system, which also includes air and water transportation. With regard to air transportation, the Comprehensive Plan Review Survey results indicate that the citizens generally support the expansion of Newport News/Williamsburg International Airport. The survey asked County residents if they agreed or disagreed with the following statement, and how strongly: "Newport News/Williamsburg International Airport should be expanded to provide direct flights to more cities even if it means extending runways further into York County." A slim majority (51%) of the respondents agreed with the statement, whereas 37% did not agree. Almost half of those who expressed opposition to airport expansion (45%) live in the Grafton area, where aircraft noise is a common occurrence.

As noted earlier, because of the shift in the fleet mix away from louder military aircraft as well as the FAA-mandated phase-out of older planes with louder engines, the airport expansion is expected to reduce the noise problem experienced by County residents who live in the path of an airport runway. Nevertheless,

improvement in air service does not necessarily require expansion of the local airport. Richmond and Norfolk International airports are both within approximately an hour's drive from most areas of the County.

The County's role in enhancing water transportation is fairly limited. However, the Yorktown revitalization effort is an opportunity for the County to make some improvements through land use and infrastructure investment decisions.

In recent years York County has taken important steps toward the development of a more multi-modal transportation network. Although road construction will continue to be a major component of the County's approach to enhancing mobility, transportation planning must also consider other modes and other strategies with a focus on the long-term needs of both the County and the region. As the region continues to grow, the County must continue to work with the other Hampton Roads communities to engage in long-range planning to develop regional solutions to regional transportation problems. The Hampton Roads Crossing Study, CSX Corridor and I-64 Major Investment Studies, and the work of the Hampton Roads Metropolitan Planning Organization are good examples of the type of regional, long-range planning and decision-making that will be needed more and more in the years ahead.

A VISION FOR TRANSPORTATION

People and goods should be able to move safely, efficiently, and cost-effectively within the County and throughout the region.

TRANSPORTATION GOALS AND STRATEGIES

AIRPORTS

- Develop on a regional basis an air transportation system in a manner that minimizes the noise impacts and safety concerns on existing County residential areas, while maximizing the economic and transportation service benefits to County citizens.
 - 1.1 Advocate the development of an enhanced regional air transportation network based around tying together the existing airport capacity in eastern Virginia with a high-speed rail system that links Newport News/Williamsburg International Airport with Richmond International and Norfolk International airports.
 - 1.2 Investigate the feasibility of securing voting representation on the Peninsula Airport Commission.
 - 1.3 Ensure that land use decision affecting areas adjacent to Newport News/Williamsburg International Airport take into consideration impacts on both the County and the airport.

BIKEWAYS

- 2 Double the number of bicycle trips for purposes of transportation as well as recreation both within York County and between the County and neighboring jurisdictions.
 - 2.1 Develop and regularly update a regional bikeway network and programs facilitating safe bicycle transportation.
 - 2.2 Integrate bikeway development into road construction and reconstruction/widening projects when funding is available.
 - 2.3 Encourage the provision of bikeways and facilities, including bike racks, in multi-family residential developments and commercial shopping centers and districts.
 - 2.4 Install directional signs for and publicize inter- and intra-County bike routes.
 - 2.5 Develop neighborhood and community bicycle networks to safely connect residential areas both with nearby commercial and public use areas and with neighboring subdivisions.
 - 2.6 Conduct bicycle rider training ranges at schools, fire stations, shopping centers, etc., and provide bicycle law and safety education as part of the elementary school program as set forth in the Standards of Learning.
 - 2.7 Continue support of and participation in regional bicycle and pedestrian efforts including the Historic Triangle Bicycle Advisory Committee.

MASS TRANSIT

- 3 Promote the development of facilities to accommodate van-pooling, ride-sharing, telecommuting, and other transportation demand management efforts aimed at the employment and service sectors in the County and the region.
 - 3.1 Jointly develop with adjacent jurisdictions "Park & Ride" programs and transfer sites using existing underused parking areas.
 - 3.2 Continue to offer reduced parking requirements as an incentive for developers to incorporate into development plans transportation demand management practices that encourage alternative modes of transportation such as van-pooling, car-pooling, bicycle and pedestrian commuting, telecommuting, etc.
- 4 Promote the development and subsequent utilization of mass transit to serve heavily traveled and densely populated corridors to reduce passenger car loads on such corridors.
 - 4.1 Investigate the feasibility of establishing high-speed rail links between the County, Newport News/Williamsburg, Norfolk and Richmond International airports to serve both air passenger and air cargo needs.
 - 4.2 Participate in feasibility studies analyzing light rail opportunities along the CSX corridor.
 - 4.3 Continue to analyze the feasibility of implementing express bus service along congested corridors in the County in a cost-effective manner.
 - 4.4 Initiate cooperative funding ventures to support tour bus services between Yorktown and other visitor-oriented areas and attractions in Hampton Roads, with primary emphasis on establishing regular tour bus services within the Historic Triangle.
 - 4.5 Participate in and financially support for no less than three years the Williamsburg Area Visitor Shuttle Bus.
- 5 Encourage economical transportation services for senior citizens and the physically and sensory challenged.
 - 5.1 Design cost-effective programs and service targeted at specific market segments where and when appropriate.

RAILWAYS

- 6 Expand rail passenger service to and throughout the Peninsula.
 - Regionally develop expanded passenger rail services--including consideration of schedules, frequency, facilities, and rolling stock--throughout the Peninsula.
- Exploit, upgrade and extend existing rail linkages in York County to promote industrial and warehousing uses.
 - 7.1 Determine, in concert with the U.S. Navy, the feasibility of modernizing and using the Cheatham Annex spur line to serve privately held industrial property adjacent to it. If determined feasible, preliminary engineering for such modernization should be performed.

ROADWAYS

8 Reduce peak-hour traffic congestion on major County arteries.

- 8.1 Annually establish priorities and standards for the improvement and expansion of existing roadways through the CIP and VDOT Six-Year Plan process using the prioritization model contained in this Plan.
- 8.2 Apply Intelligent Transportation Systems (ITS) technology to the Route 17 corridor and seek early deployment funding from the State and Federal Departments of Transportation.
- 8.3 Develop roadway network plans to support existing and emerging residential, commercial, and industrial development patterns.
- 8.4 Limit the numbers and types of direct access to the roadway network.
- 8.5 Encourage residential development patterns that provide direct driveway access from individual units to local streets and not to collector and arterial roadways.
- 8.6 Coordinate and cooperate with neighboring jurisdictions in planning and developing roadway systems.
- 8.7 Participate in revenue-sharing matching-fund programs offered by VDOT to the maximum extent fiscally feasible in order to accelerate road construction and improvement projects.
- 8.8 Require the interconnection of subdivision street systems for use by bicyclists, pedestrians, emergency vehicles, and--where such interconnection will not encourage "cut-through" traffic by people living outside the subdivisions--automobiles.

9 Reduce the number and severity of accidents on York County's roadways.

- 9.1 Continue to provide County-funded law enforcement positions used in traffic law enforcement operations.
- 9.2 Continue to support and promote the York County Transportation Safety Commission.
- 9.3 Install or require installation of street lighting along heavily traveled corridors, at critical intersections, within new medium- and high-density residential areas, in office and industrial parks, and at other appropriate locations in the County.
- 9.4 Develop specific plans for the transportation of hazardous materials within and through the County.
- 9.5 Evaluate the use of traffic calming street designs that could, if determined desirable after careful study, be incorporated into the Subdivision Ordinance for application in residential neighborhoods.
- 9.6 Enhance capabilities to respond to vehicular accidents, including those involving hazardous materials, on County roadways.
- 9.7 Require that traffic issues and concerns be fully addressed as a part of all new development in the form of a traffic impact analysis.

10 Promote roadway development that is sensitive to environmental and cultural resources.

10.1 Incorporate into the County's development review process provisions to require that roadway plans be analyzed with specific focus on the preservation and/or restoration of environmental, aesthetic and cultural resources to include the establishment of and maintenance of greenbelts and scenic easements, planting of street trees, and landscaping

of roadway frontages and medians. In this regard, the provision of earthen forms and buffers containing dense vegetation and trees between residential communities and major roadways should be required as the preferred alternative to structural noise barriers.

WALKWAYS

11 Encourage people to make short trips by foot.

- 11.1 Require the installation of pedestrian linkages between residential areas and schools, shopping areas, and recreational, cultural, and public facilities.
- 11.2 Annually review, and if necessary revise, in conjunction with the County's six year road plans, the recommended sidewalk plan contained in this Plan to ensure that the categorization and prioritization of proposed sidewalk locations remain applicable and appropriate.
- 11.3 Develop a walking tour of Yorktown incorporating both the historic area and the waterfront. Construct as necessary, pedestrian facilities to support this walking tour and publish a walking guide to the village incorporating maps and historical information about the buildings and sites along the way.

12 Provide a safe and convenient walking environment for pedestrians.

- 12.1 Develop new walkways and complete existing walkway systems, including marked crosswalks, lighting, and signals where appropriate, in conjunction with adjoining jurisdictions
- Provide inviting and appealing sidewalks in commercial, tourist-oriented, and residential areas as opportunities arise and funding becomes available.
- 12.3 Require walkways in new medium- and high-density residential development and as a part of development plan approvals where appropriate.
- 12.4 Include, as appropriate, sidewalk construction as a part of roadway construction and improvement projects.

13 Reduce the number and severity of pedestrian traffic accidents.

WATERWAYS

14 Enhance the safety of the County's waterways.

- 14.1 Develop, in conjunction with the U.S. Coast Guard, other governmental entities and agencies, and private industry, a comprehensive emergency preparedness and response plan for water-borne disasters and oil and hazardous materials spills and incorporate such a plan into the County's overall emergency plan.
- 14.2 Regulate the use of jet skis and other watercraft and provide enforcement.

15 Revitalize the Yorktown waterfront and strengthen the relationship between the York River and Yorktown.

- 15.1 Promote Yorktown as both an origination point and port-of-call for small passenger cruise ship operations.
- 15.2 In accordance with the <u>Yorktown Master Plan</u>, exploit opportunities available to revitalize the Yorktown waterfront and strengthen the relationship between Yorktown and the York River.

16	Explore opportunities watercraft.	for meeting d	redging nee	ds for both r	ecreational and	commercial